



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: HTF7000 (AS907-1-1A) BYPASS RATIO: 4.2
 UNIQUE ID NUMBER: 11HN002 PRESSURE RATIO (π_{co}): 22.0
 COMBUSTOR: SABER-1
 ENGINE TYPE: MTF RATED THRUST (F_{oo}) (kN): 30.6

REGULATORY DATA

**** DATA SUPERSEDED ****

SEE FOLLOWING UID FOR REVISED DATA:

11HN003

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	5.4	110.9	53.4	12.8
AS % OF ORIGINAL LIMIT	27.5	93.9	63.7	39.0
AS % OF CAEP/2 LIMIT (NO _x)			79.6	
AS % OF CAEP/4 LIMIT (NO _x)			80.6	
AS % OF CAEP/6 LIMIT (NO _x)			81.1	
AS % OF CAEP/8 LIMIT (NO _x)			77.3	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)

x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F _{oo})	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.347	0.04	0.60	18.10	9.9
CLIMB OUT	85	2.2	0.288	0.06	0.60	16.28	9.0
APPROACH	30	4.0	0.104	0.12	5.97	9.17	0.7
IDLE	7	26.0	0.048	1.35	34.50	3.98	1.7
LTO TOTAL FUEL (kg) or EMISSIONS (g)			152				-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				4	4	4	4
AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX)				3.5	90.3	46.1	9.9
SIGMA (D _p /F _{oo} in g/kN, or SN)				0.1	1.6	0.8	0.4
RANGE (D _p /F _{oo} in g/kN, or SN)				3.4-3.62	88.87-92.46	45.45-47.11	9.2-10

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	96.8-97.6
TEMPERATURE (K)	296-303
ABS HUMIDITY (kg/kg)	0.0013-0.004

FUEL

SPEC	Jet A
H/C	1.87-1.89
AROM (%)	19.6-20.5

MANUFACTURER: Honeywell
 TEST ORGANIZATION: Honeywell
 TEST LOCATION: Phoenix, AZ
 TEST DATES: 07/04/2010-14/04/2010

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

REMARKS

- Reference: Original FAA Certification Report; Honeywell Report 21-14240-6A
- Exhaust Smoke and Gaseous Emissions Test of the AS907-1-1A Turbofan Engine, dated August 31, 2010.
- Reported using humidity h=0.00629 in accordance with 14 CFR 34
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NO_x levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements:

x ('x' if complies, 'PR' if pre-regulation, '- ' if information is not available)